FAP42T(B)

Strategy Series® II 4" Loudspeaker System

FAP42T

Specifications

Woofer Size	4" (102mm)
Power Handling	25 Watts
Transformer Taps at 70.7V	1, 2, 4, 8, & 16 Watts & 8Ω Bypass
Sensitivity (1W / 1M)	88dB Average
Frequency Response	75Hz – 20kHz (±7dB)
Magnet Weight	10oz (364g)
Cut-Out Diameter	9" (229mm)
Height	8⅞" (225mm)
Diameter	10½" (267mm)
Woofer	4" Poly Cone with Butyl Rubber Surround
HF Driver	Coaxially Mounted PEI Dome Tweeter

Features

- Extended low frequency response from the 285 in^3 optimally tuned and ported deep drawn, galvanized steel enclosure
- Easy installation in drop tile or sheetrock ceilings via C-Ring / V-Rail tile bridge and "Dog Leg" mounting system (Included)
- Front mounted tap selector switch for easy system tuning adjustments includes transformer bypass setting for 8Ω / direct coupled operation
- Unique "trap door" input section allows for through conduit runs with rigid or flex conduit
- 4 Pole detachable Phoenix style / Euro connector allows easy prewiring and is convenient for daisy chaining additional Strategy Series full range speakers or subwoofers
- "Press fit" grilles blend better into contemporary architecture
- Enhanced quality 70.7V / 100V internal transformers minimize insertion loss and maintan low frequency response while providing increased output for higher SPL applications
- Also Available in Black FAP42T-B
- UL 1480 Listed

Applications

FAP42T combines superior coaxial loudspeaker performance with wide dispersion and easy installation. A low profile enclosure and wide coverage make the FAP42T a perfect choice for low ceilings. The FAP42T will satisfy the needs of owners, architects, contractors, and consultants by delivering true, high fidelity sound reproduction in an attractive and easy-to-install system. The FAP42T is ideal for high-intelligibility voice, music, and signal reproduction in commercial, industrial, and institutional applications.

FAP42T-B

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General Description

The FAP42T's 130˚ dispersion angle effectively reduces the number of loudspeakers necessary to achieve coverage in distributed systems with low ceilings.

The loudspeaker component matches the performance of the legendary Atlas Sound Strategy FA Series. High quality construction 4" coaxial cone type driver includes a 1" voice coil and polypropylene cone with a butyl rubber surround. The 19mm coaxially mounted tweeter is constructed of PEI. A high sensitivity level means less power may be required to achieve the desired SPL. This loudspeaker is factory assembled in an optimally tuned & ported deep drawn enclosure and includes a specially designed 16 Watt low saturation 70.7V / 100V transformer. A convenient front mounted selector switch allows tap selection without the need to remove the speaker from the ceiling. This switch also includes a transformer bypass setting for 8Ω direct coupled operation.

Mounting Accessories

Mounting is simplified with Strategy style "Dog Leg" tabs that allow easy installation into drop tile or drywall ceilings with provided tile bridge assembly. The tile bridge consists of two "V" shaped formed mounting rails and a C-Ring assembly. The C-Ring can be attached to the rails with the screws provided to extend support to the T-Bar grid in suspended ceiling applications. Multiple hole locations are provided to allow the C-Ring to be positioned to the outer edge the tile if necessary.

For existing dry-wall applications the tile bridge C-Ring and support rails can be inserted into the hole cut for the FAP42T. For easy positioning the "V" shaped support rails match the shape of the C-Ring tabs for easy maneuvering and location when working "blindly" above the deck

A uniquely designed "easy access" input panel on the side of the enclosure allows for "thru" conduit runs using flexible or rigid conduit. Below this cover resides a detachable Phoenix style locking four-pole connector which provides for easy daisy chain wiring to other full range 70.7V loudspeakers or Atlas Sound FASUB subwoofer. The package includes an attractive press-fit grille which nicely matches contemporary architecture.

For new construction drywall ceiling applications, the optional FAP42-TR trim ring is available. This unit provides a marked location for drywall installers to cut around essentially reserving the desired location in the ceiling until final installation of FAP42T. Mounting holes are provided to accommodate 16" or 24" OC stud / joist mounting.

A support ring is also provided on the top of the FAP42T enclosure to facilitate an auxiliary support cable.

NOTE: IT IS MANDATORY THAT THIS SECONDARY SUPPORT BE UTILIZED IN DROP CEILINGS FOR SAFETY AND SEISMIC CONSIDERATIONS).

Architect & Engineer Specifications

System shall include a high performance 4" coaxial loudspeaker, ported bass reflex enclosure and press-fit grille for conventional ceiling installation.

Frequency response for the system shall be 75Hz – 20kHz (±7dB). Sensitivity shall be 88dB average. Loudspeaker shall be comprised of a 4" coaxial cone driver constructed of polypropylene with a butyl rubber surround. The 19mm tweeter shall be constructed of PEI. Magnet shall be a minimum of 10oz. (264g) and the voice coil diameter shall be 1" (25mm).

Transformer shall be a 70.7V / 100V type with 1, 2, 4, 8, and 16 watt primary taps (@70.7V) with a front mounted tap selector switch to include a transformer bypass setting for 8Ω / direct coupled operation.

Enclosure shall be a deep drawn steel enclosure design. Internal volume shall be 285 in^3. To facilitate connection in conduit systems, enclosure shall be equipped with an access panel covering a recessed terminal cup. This cover shall provide a combination ¾" (19mm inside diameter) / 1" (25mm inside diameter) knock-out on the side access and a top access compression fitting / strain relief to facilitate flexible conduit up to 22mm outside diameter or 1 in (25mm inside diameter) conduit when the compression fitting is removed.

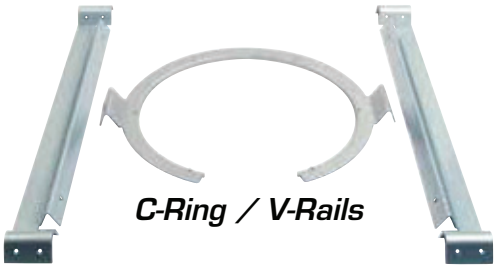
External wiring shall be accomplished via a removable lockable wiring connector with screw-down terminals to provide both secure wire termination and pre-wiring capability before loudspeaker installation. The 4-pole locking connector shall facilitate in / out connections and shall be located in the recessed area behind the conduit access panel.

Seismic support eye shall be provided on top of enclosure for additional suspension point when used in drop tile ceilings. Construction of enclosure shall be a minimum of 18-gauge, deep drawn galvanized metal.

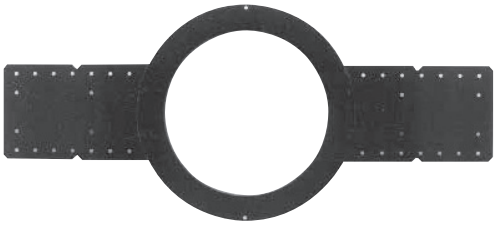
The system shall include a support backing plate to reinforce the ceiling material and tile support rails for use on either 2' x 4' (609mm x 1219mm) or 2' x 2' (609mm x 609mm) suspended ceiling tiles. This assembly can all be installed from beneath the ceiling tile.

Overall front face diameter shall not exceed 10½" (267mm); overall depth from the bottom of the ceiling shall not exceed 8⅞" (225mm). Grilles shall be press-fit, manufactured from 24-gauge perforated steel mesh and finished in white epoxy. Round grille shall be 8⁷⁄₁₆" (214mm) diameter.

The loudspeaker shall be the Atlas Sound FAP42T.



C-Ring / V-Rails



FAP42-TR

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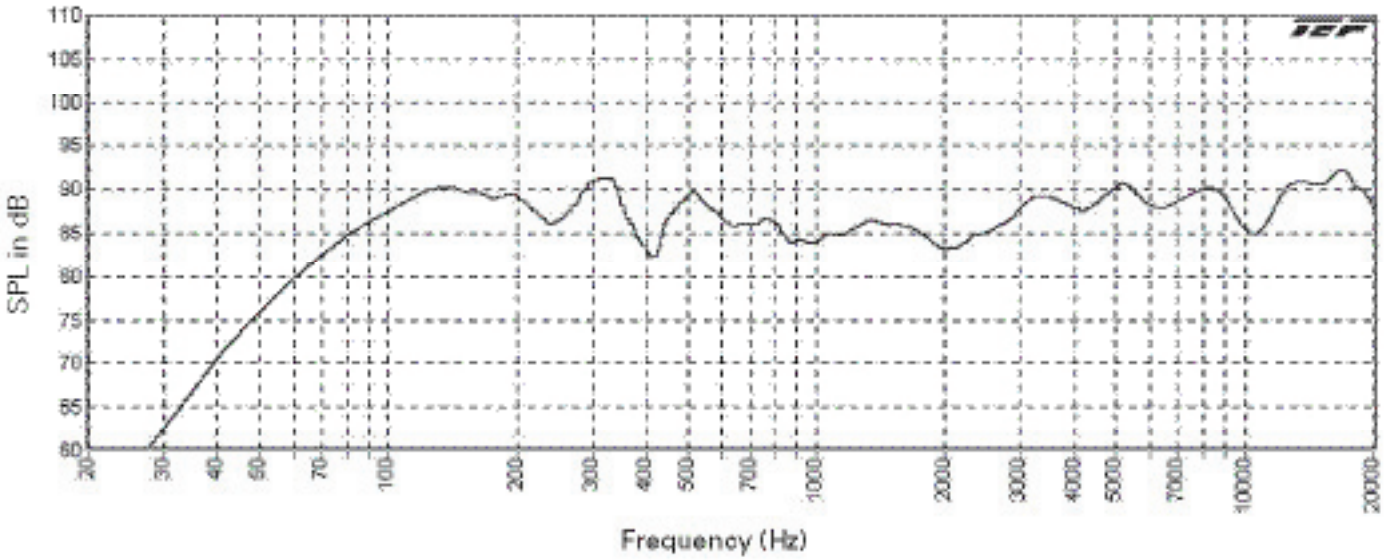
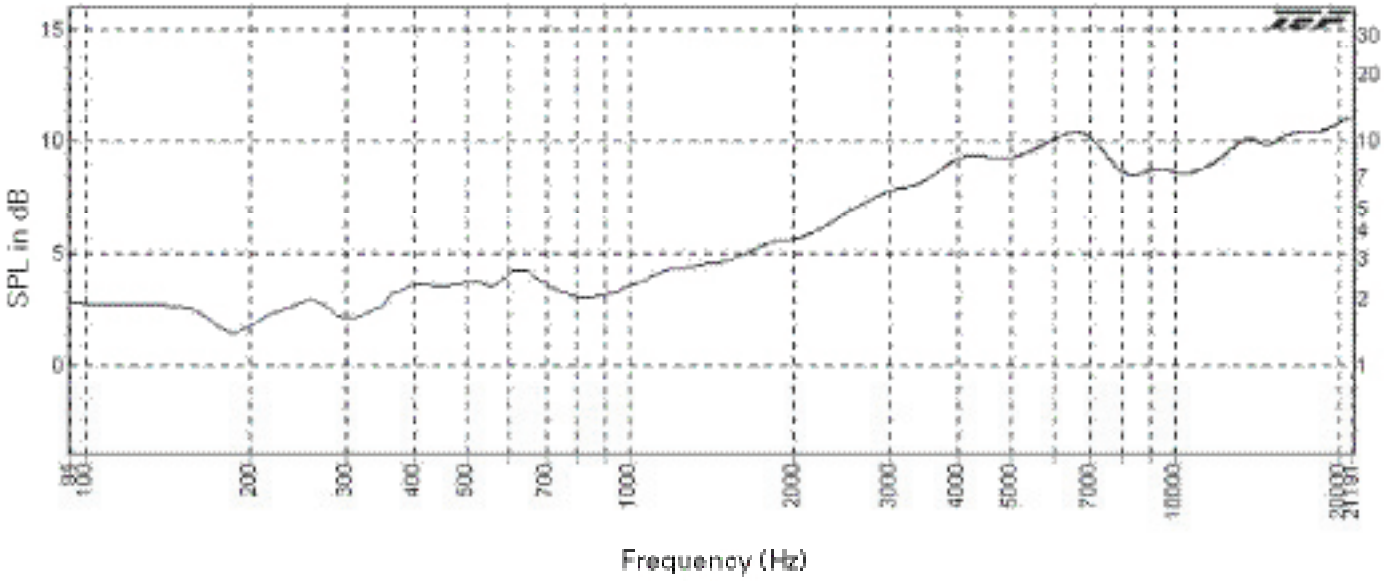
FAP42T 1/2 Space Frequency Response



FAP42T Directivity vs Frequency



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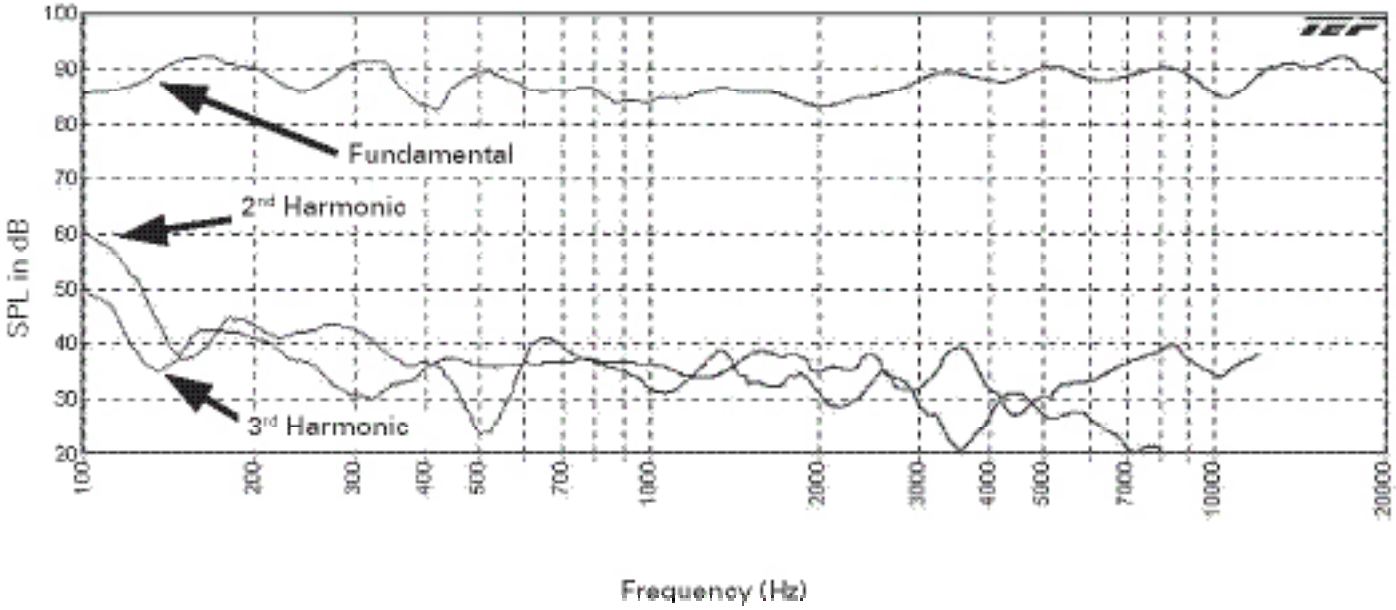
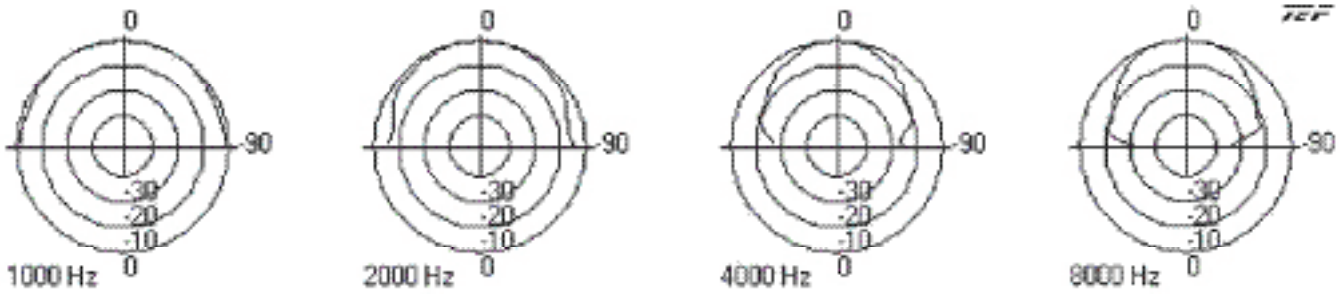
FAP42T Harmonic Distortion



FAP42T Polars (Normalized to Zero on Axis) (-6 dB)



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FAP42T
Installation Instructions

ATS001131a RevF 12/08

Atlas Sound

The Atlas Sound Strategy Series® II assembly mounts easily into existing construction drop ceiling or drywall materials

FAP42T
Installation Instructions
ATS001131a RevD 2/04

Mounting Template 9" Dia.

Painting Shield 8½" Dia.

Drop Tile Ceiling Installation

1. Remove 2'x2' or 2'x4' tile.
2. Align adjustable dual rail & c-ring assembly on rear of tile in desired position.
3. Using template provided mark cutout circle with marker and cut hole. (9" FAP42T)
4. Affix C-ring assembly to rails using screws provided and position assembly on rear of ceiling tile. Replace tile into grid making sure that formed ends of tile bridge rails engage T-bar tile support rails.
5. Bring service loop from rear of tile, through tile bridge C-ring to access panel located on side of enclosure. Terminate the service loop to Phoenix style connector provided (please note polarity). Combination knockouts are provided to facilitate conduit.
6. Insert enclosure through front of tile. Using standard #2 Phillips screwdriver or screw-gun, tighten (4) dogleg assemblies until they engage C-ring assembly. **DO NOT OVER-TIGHTEN DOG LEG SCREWS!**
7. Adjust front mounted switch to desired wattage tap setting or 8Ω* **(See important note regarding 8Ω operation)**
8. Install press-fit grille into front bezel ring. Push baffle upwards until baffle is flush with bezel ring.
9. For safety and seismic considerations a suspension ring is integrated into input panel section of unit. Atlas Sound strongly suggests that a support wire be installed from this support point to a suitable anchor point above ceiling grid. In drop tile applications, this wire can usually be installed from an adjacent tile access near speaker location.

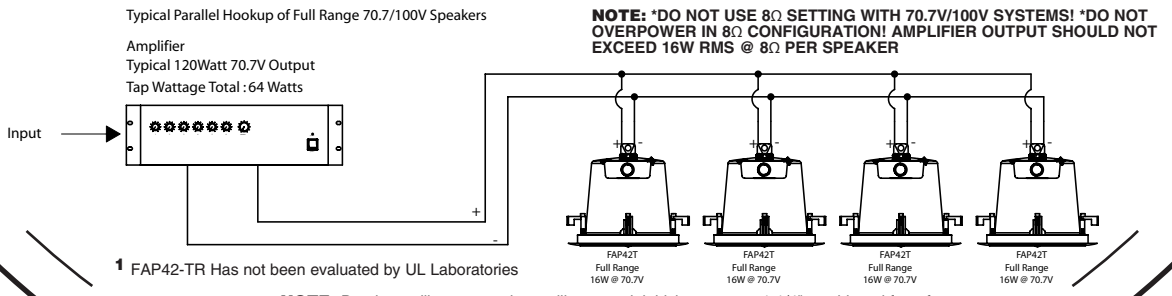
Dry Wall ("Hard Deck") Installation

1. Using template provided, mark cutout circle in desired mounting location and cut hole. (9" FAP42T)
2. Place tile bridge rails and C-ring through hole. Use V shaped edge of C-ring to align tile bridge assembly above ceiling (alignment screws provided are not required for this type of installation)
3. Bring service loop from through the tile bridge/C-ring to access panel located on side of the enclosure. Terminate service loop to Phoenix style connector provided (please note polarity). Combination knockouts are provided to facilitate conduit.
4. Insert enclosure into hole. Using standard #2 Phillips screwdriver or screw-gun, tighten (4) dogleg assemblies until they engage the C-ring assembly. **DO NOT OVER-TIGHTEN DOG LEG SCREWS!**
5. Adjust front mounted switch to desired wattage tap setting or 8Ω* **(See important note regarding 8Ω operation)**
6. Install press-fit grille into front bezel ring. Push baffle upwards until baffle is flush with bezel ring.

New Construction (Darywall Ceilings)

Use of optional FAP42-TR[1] (for use with FAP42T) new construction bracket essentially reserves speaker mounting location prior to drywall installation in new construction. Bracket mounts between 16" or 24" OC studs and includes a 3/8" downward lip to provide a template for drywall installers to cut around. For final installation, please follow instructions below.

Note: tile bridge components are not used in new construction applications where new construction bracket is utilized.
1. Bring service loop through hole in ceiling provided by pre construction bracket to access panel located on side of Enclosure. Terminate service loop to Phoenix style connector provided (please note polarity). Combination knockouts are provided to facilitate conduit.
2. Insert speaker assembly into hole. Using standard #2 Phillips screwdriver or screw-gun, tighten (4) dog leg assemblies until they engage ring provided on new construction bracket. **DO NOT OVER-TIGHTEN DOG LEG SCREWS!**
3. Adjust front mounted switch to desired wattage tap setting or 8Ω* **(See important note regarding 8Ω operation)**
4. Install press-fit grille into front bezel ring. Push baffle upwards until baffle is flush with bezel ring.

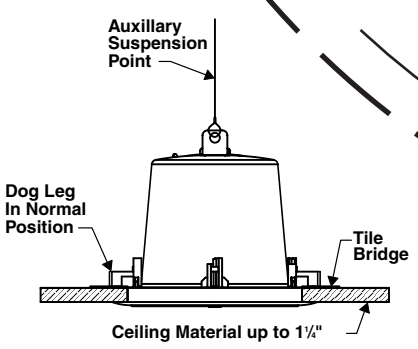


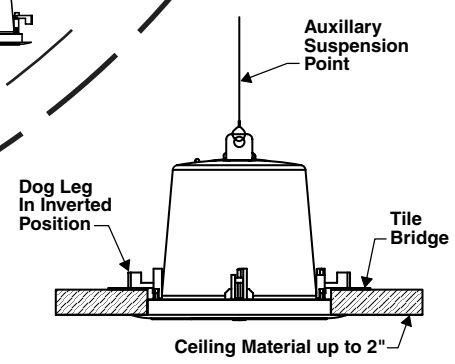
NOTE: *DO NOT USE 8Ω SETTING WITH 70.7V/100V SYSTEMS! *DO NOT OVERPOWER IN 8Ω CONFIGURATION! AMPLIFIER OUTPUT SHOULD NOT EXCEED 16W RMS @ 8Ω PER SPEAKER

[1] FAP42-TR Has not been evaluated by UL Laboratories

NOTE: Dog legs will accommodate ceiling material thickness up to 1 1/4" as shipped from factory. For thicker ceiling materials (up to 2") simply unscrew and flip dog legs as shown.
DO NOT OVER-TIGHTEN DOG LEGS IN EITHER CONFIGURATION!

NOTE: UL recognized conduit clamp must be used for conduit connections. Cable connection cavity is not intended to be used as a junction box.





FREQUENCY RESPONSE: 70Hz-20kHz **SENSITIVITY:** 88dB (1W/1M)